CHAPTER 3

MACHINE FORMATS FOR INPUT DATA

A. FIXED-FIELD PUNCH CARD INSTRUCTIONS

1. General Information

- a. Data may be submitted for input to the R&TWUDB by means of fixed-field punched cards (see table 3-1, Fixed-Field Card Formats).
- b. Columns 2 through 9 (agency accession), 10 through 15 (date of summary), and 16 (transaction type) are control fields common to all input cards for the same transaction and are mandatory in all cards regardless of the type of transaction.
- c. Each card shall be identified by an alphabetic card type code in column 17 and a 2-digit sequence number in columns 18 and 19.
- d. An $A\emptyset 1$ card complete at least through column 19 is mandatory in any input transaction.
- e. The data pertinent to each card type and sequence number are entered in columns 20 through 80.

2. Justification of Fields

- a. All data fields are to be punched left-justified except dollar and work-year fields when the length of a **valid** entry may be less than the fixed-field length.
- b. The following dollar and work-year fields shall be punched right-justified with preceding zeros in the unused high-order columns:

| <u>Field Number</u> | <u>Field Name</u> | Card Type |
|---------------------|---|-----------|
| 17D2 | Contract or Grant Amount | E |
| 17F | Contract or Grant Cumulative Dollar Total | E |
| 18A | Fiscal Year Professional Work-Years | F |
| 1813 | Fiscal Year Funds | F |

3. Entries for Narrative-Type Fields

a. The following fields shall have the security code (U, C, or S) punched in column 20 in the first card of the series. Punch the first character of the text in column 21 of the first card of the series. Punch continuously through column 80. Start the text of each trailer card in column 20 unless it coincides with a normal space, then begin the next word in column 21.

| Field Number | <u>Field Name</u> | Cards |
|--------------|-------------------|------------------|
| 11 | Title | CØ1 - CØ4 |
| 23 | Objective | QØ1 - Q45 |
| 24 | Approach | RØ1 − R45 |
| 25 | Progress | SØ1 - S45 |

b. The narrative portion of the work unit comprises four data elements: title (field 11), objective (field 23), approach (field 24), and

progress (field 25). The objective and approach may be combined in field 23 as an abstract. These fields should provide a technical description of the work, its purpose and progress. The narratives shall be sufficient to identify the work unit and its progress, but shall be brief.

- c. Punch each keyword (field 22) in columns 21 through 69 of separate cards, PØ1 to P20. Punch the security code in column 20 of each card.
- d. The maximum entry of the title (field 11) is 244 characters and spaces . Security code (U) is entered in column 20.

4. New Transactions (Card Column 16 = A)

In general, on a NEW transaction all the data fields required for a complete description of a work unit shall be entered and punched.

5. Modification Transactions to Work Unit Records (Card Column 16 = D, H, K, or R)

- a. An $A\emptyset1$ card punched card columns 2 through 19 is mandatory.
- b. Only those data fields to be added, changed, or deleted by a D, H, K, or R transaction shall be punched. Other fields that are not required shall be left blank (unpunched).
- c. A delete code plus (+) sign is provided for use by the contributor on modification transactions to delete certain previously reported data from individual data fields within a record. This is accomplished by entering a plus (-t) sign in the high-order position of the specific data field in the card or card image. Deletions may occur on the same transaction with modifications that add or replace other data. Exercise care in the use of the delete code because for many data elements a blank on the record is an invalid condition; therefore, an attempt to delete such data may cause the transaction to be rejected. The following is a list of those fields that may be deleted.

Field Number Field Name Regrading 8A2 Additional Security Restriction 10B1 through 10C3 Contributing Number or Codes 12B, 12C Scientific and Technological Area Fields and Groups Codes 15B, 15C Funding Organizations 17A1 through 17F Contract or Grant Data 20C, 20D Principal Investigator's Name, Telephone Number 20F, 20G Associate Investigator's Name 21A through 21D Studies and Analyses Data (See Appendix D) Civilian and Military Application 2 1E

- d. Changes, corrections, or additions to a previously submitted title, objective, approach, or progress field can be made only by resubmitting the appropriate field in its entirety.
- e. Certain groups of data elements are considered sets of data elements. Changes, corrections, or additions to any elements of a set shall be made by resubmitting the entire set. The following are the groups of data elements that comprise such sets:

| <u>Field Number</u> | Field Name |
|------------------------------|--|
| 10A1 10A2 10A3 10A4 | Primary Program Element Number Primary Project Number Primary Task Area Number Work Unit Number |
| 10B1 10B2 10B3 | First Contributing Program Element First Contributing Project Number First Contributing Task Area Number |
| 10C1 10C2 10C3 | Second Contributing Program Element Number Second Contributing Project Number Second Contributing Task Area Number |
| 18 18A 18B | Fiscal Year Fiscal Work-Years Fiscal Year Funds |

B. CARD IMAGE MAGNETIC TAPE INSTRUCTIONS AND LAYOUTS

1. General Information

- a. Data may be submitted for input to the R&TWUDB by means of fixed-field card images on card image magnetic tape (see table 3-2, Card Image Magnetic Tape Layout Format).
 - b. Employ either:
- (1) A nine-track, 1600 or 800 BPI, odd parity tape with EBCDIC or ASCII character set or,
- (2) A seven-track, 800 or 556 BPI, even parity tape with a BCD character set.
- c. Format in 720 character blocks (9-80 character card images) with an Inter-Record Gap (IRG) between blocks. Do not use record marks. In the event that the last block of data is less than 720 characters, complete the block with a padding of 9's.
- 2. <u>Header Label</u>. An 80-position header label is required at the beginning of every reel of card image magnetic tape submitted containing work unit input. The label consists of an 80-character record with 40 positions of identifying information and 40 blank positions. An IRG shall appear between the header label and the first data record. The following four fields are required for identification:
- a. Label Identifier. A 5-position constant consisting of the digit one, the letters HDR, and a blank position (1HDR) in positions 1 through 5.
- b. Reel Sequence Number. A 5-position field that indicates the order of the tape in a multi-reel file. It consists of a minus sign, three digits, and a blank position $(-\emptyset \emptyset 1)$ in positions 16 through 20. Identify a single-reel file with a reel sequence number of $\emptyset \emptyset 1$.
- c. <u>File Identification</u>. A 10-position field identifying the file contents and the originating DoD Component in positions 21 through 30. It consists of the digits 1498, the originating DoD Component digraph, and up to four additional characters to identify the originating DoD Component.

- d. <u>Creation Date</u>. A 5-digit date consisting of two digits for the calendar year and three digits for the day of the year (ordinal date) in positions 31 through 35.
- 3. <u>Data Layout</u>. Record the data as punch card images formatted as shown on pages 3-1 through 3-3. Conclude the data recording with a tape mark (TM) following the IRG after the last data block. Follow the TM with another IRG and the trailer label.
- 4. <u>Trailer Label</u>. An 80-position trailer label is required at the end of every reel of card image magnetic tape submitted containing work unit input. The label consists of an end-of-reel (EOR) or end-of-file (EOF) signal, block count, and record count in the first 30 positions, and the marking of the highest security classification recorded on the tape in the remaining 50 positions.
- a. <u>Tape Signal</u>. This 4-position field indicates that the tape is an intermediate or final reel. It consists of the digit 1 followed by the letters EOR to indicate an intermediate reel or EOF to indicate a final reel followed by a blank (IEOF) or 1EOR) in positions 1 through 5.
- b. <u>Block Count</u>. A 5-digit count recorded in positions 6 through 10 which reflects the number of information blocks written on the tape. Do not include label blocks in the count.
- c. Record Count. A 10-digit count recorded in positions I through 20 that reflects the number of 80-column card images containing work unit information written on the tape. Do not count 9s records that are used as block padding.
 - d. Positions 21 through 30 are blank.
- e. <u>Classification of Tape</u>. Positions 76 through 78 of the trailer label will reflect the highest classification of any transaction recorded on the reel as determined by the contents of columns 26, 31, and 32 of card type A.

| <u>Position</u> | Security Classification | <u>Length</u> |
|-----------------|-------------------------|---------------|
| 76 | U, C, or S | 1 |
| 77-78 | RD, FR, or blank | 2 |

- f. Positions 79 and 80 are blank.
- Affix to each tape reel an external label containing the following information recorded in the internal labels:
 - a. File identification.
 - **b.** Creation date.
 - c. Classification of tape.
 - d. Record count.
 - e. Tracks (7 or 9).
 - f. Tape density.
 - g. Parity.
 - h. Reel sequence number (Reel of __).

FIXED-FIELD INPUT CARD FORMATS(AØ1, AØ4, AØ5)

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Table 3-1

FIXED-FIELD INPUT CARD FORMATS- continued (AØ6, AØ7)

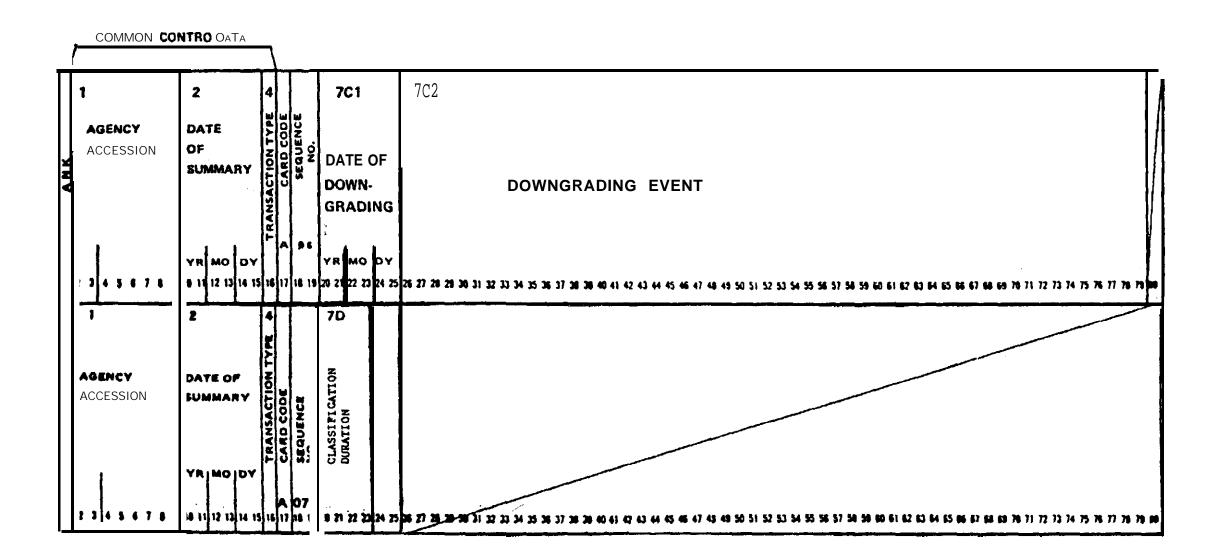


Table 3-1

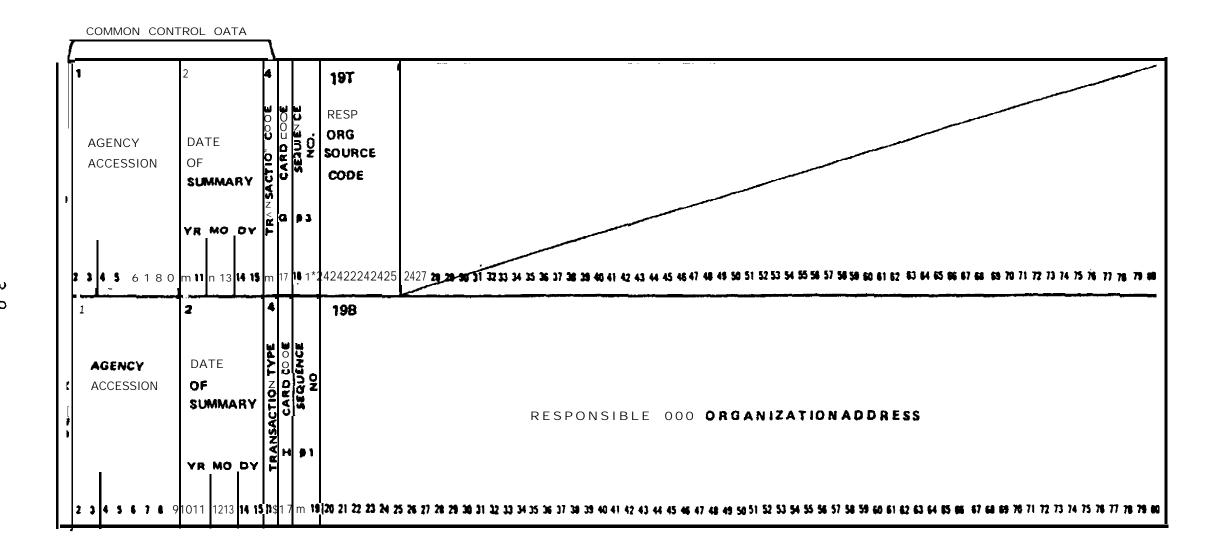
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Table 3-1

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FIXED-FIELD INPUT CARD FORMATS- continued (EØ1, FØ1, GØ1 and GØ2)



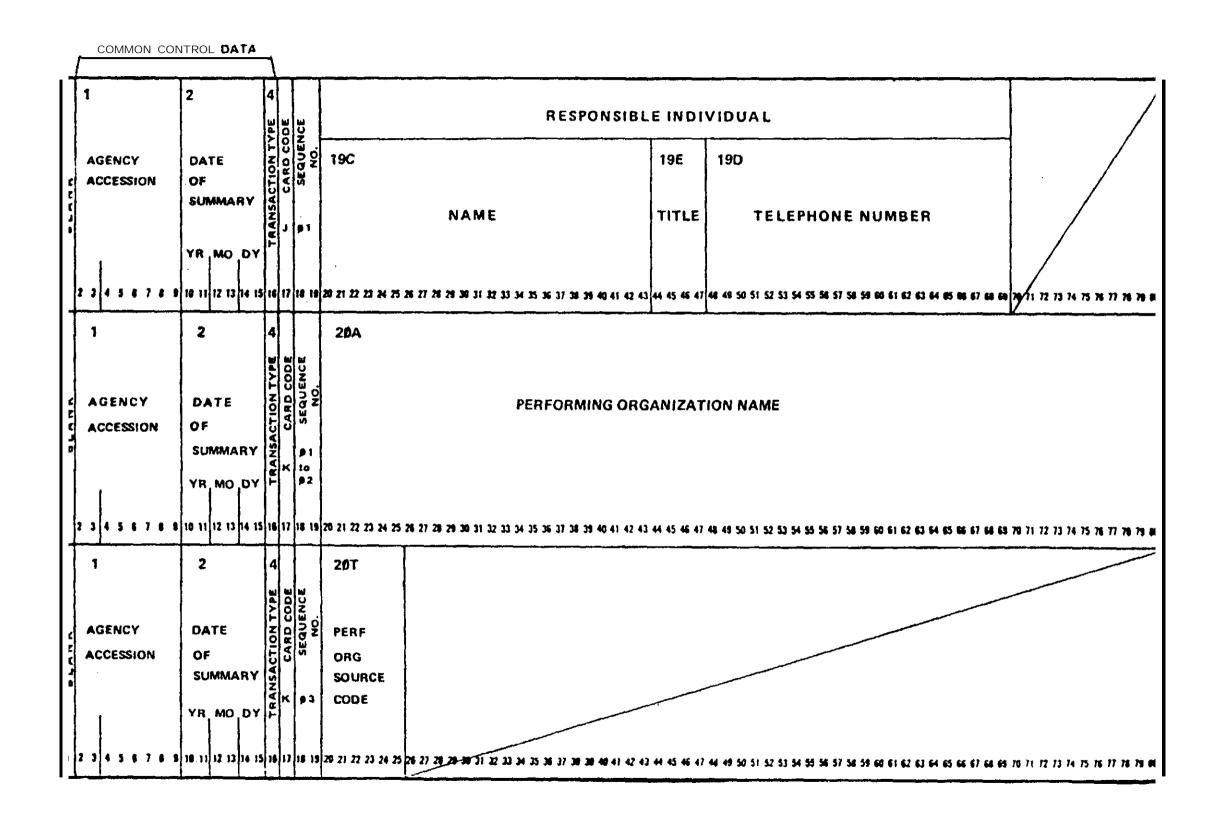


Table 3-1

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3-11

FIXED-FIELD CARD FORMATS- continued (LØ1 and LØ2, MØ1)

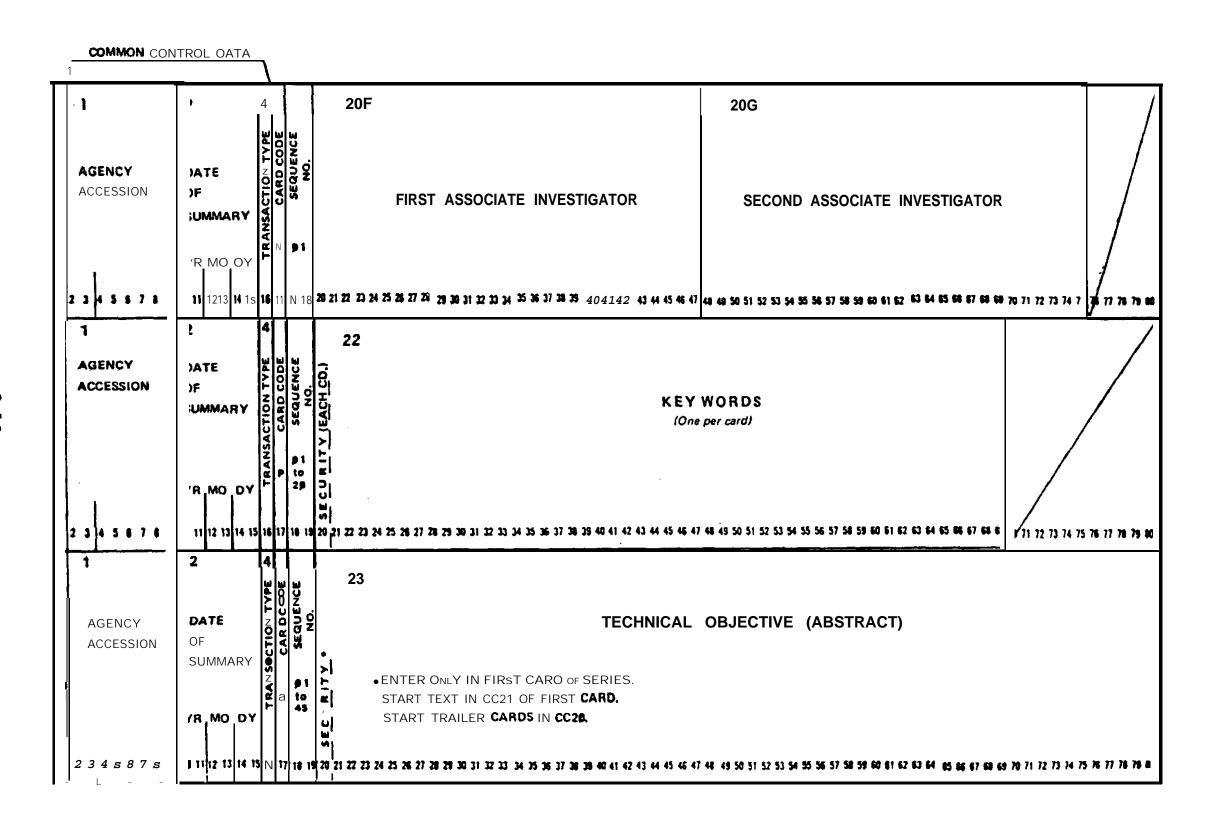


Table 3-1

FIXED-FIELD INPUT CARD FORMATS - continued (RØ1 thru R45 and. SØ1 thru S45)

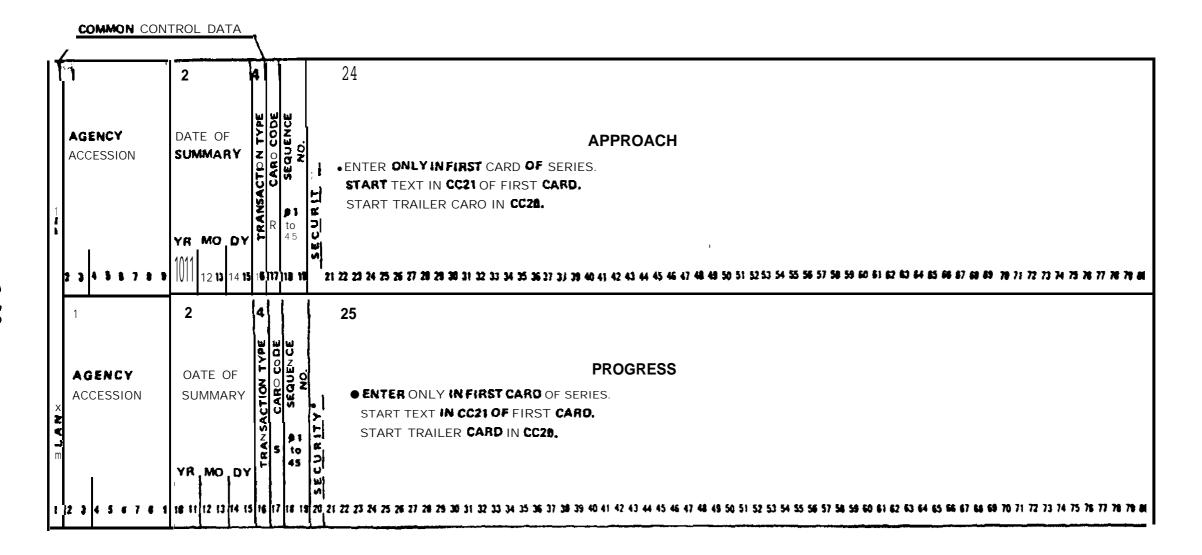


Table 3-1

Table 3-2

CARD IMAGE MAGNETIC TAPE LAYOUT FORMAT

TRAILER LABEL

LABEL
BLOCK SEC.

T TAPE

IRG M END

LABEL
BLOCK SEC.

T TAPE

1 TAPE

3-14